CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

An ISO 9001:2008 Certified Company

Job No.: CTCE/BBMP/W.No.13/KRIDL/CEMENT/2012-13

Date: 03.05.2013

TEST REPORT

CLIENT	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
AGENCY	:	**Technical Manager (West),** KRIDL, Bangalore.
NAME OF THE WORK	:	Construction of Culverts in 2nd Main Road at Ravindranagara in Ward No.13 in Shettyhalli Sub Division, BBMP, Bangalore.
REFERENCE	:	BBMP/AEE/SSD/DZ/PR/27/2012-13
SAMPLE ID	:	Cement
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-1989
1	a) Initial Setting Time	IS-4031 (Part -5)	140 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	475 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part 3) by the Le-Chatelier method	1 mm	Not more than 10 mm
3	Standard Consistency	IS-4031 (Part -4)	29.50 %	-

AE N-13

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Job No.: CTCE/BBMP/W.No.13/KRIDL/SAND/2012-13

: 03.05.2013

TEST REPORT ON FINE AGGREGATES (SAND)
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager (West),** KRIDL, Bangalore.

Name of Work : Construction of Culverts in 2nd Main Road at Ravindranagara in Ward No.13 in Shettyhalli Sub Division, BBMP, Bangalore.

Reference : BBMP/AEE/SSD/DZ/PR/27/2012-13

Date of Testing : 03.05.2013

Material : Sand

Total Wt. of Aggregates in gms **2000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	104	5.20	5.20	94.8	90-100
2.36	212	10.60	15.80	84.2	75-100
1.18	516	25.80	41.60	58.4	55-90
600 Micron	428	21.40	63.00	37.0	35-59
300 Micron	480	24.00	87.00	13.0	8-30
150 Micron	207	10.35	97.35	2.7	0-10

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Job No.: CTCE/BBMP/W.No.13/KRIDL/AGG/2012-13 : 03.05.2013

CIVIL ENGINEERING TESTING LABORATORY www.civiltechconsultants.com

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager (West),** KRIDL, Bangalore.

Name of Work : Construction of Culverts in 2nd Main Road at Ravindranagara in Ward No.13 in Shettyhalli Sub Division, BBMP, Bangalore.

Reference : BBMP/AEE/SSD/DZ/PR/27/2012-13

Date of Testing : 03.05.2013

Material : 40mm Aggregates

Total Wt. of Aggregates in gms **25800**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	1048	4.06	4.06	95.94	95-100
20	15462	59.93	63.99	36.01	30-70
10	6425	24.90	88.90	11.10	10-35
4.75	2420	9.38	98.28	1.72	0-5

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Job No.: CTCE/BBMP/W.No.13/KRIDL/STEEL/2012-13 07.05.2013

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
Name of the work	:	Construction of Culverts in 2nd Main Road at Ravindranagara in Ward No.13 in Shettyhalli Sub Division, BBMP, Bangalore.
Reference	:	BBMP/AEE/SSD/DZ/PR/27/2012-13
Date of Test	:	07.05.2013
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm²	Tensile strength (Ultimate stress) N/mm²	Elongation percent gauge length		
1	8	0.40	510	546	12.95	O.K	O.K
2	10	0.62	513	550	13.40	O.K	O.K

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Job No.: CTCE/BBMP/W.No.13/KRIDL/Pre slab/2012-13

16.05.2013

PRE CAST SLAB(CORE) TEST REPORT

Name of Client	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
Name of Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
Name of work	:	Construction of Culverts in 2nd Main Road at Ravindranagara in Ward No.13 in Shettyhalli Sub Division, BBMP, Bangalore.
Referece	:	BBMP/AEE/SSD/DZ/PR/27/2012-13
No.of Sample Tested	:	03
Date of Testing	:	16.05.2013
Techinical Reference	:	IS:516-1959 (Reaffirmed 1999), SP-24:1983.
Grade of Concrete	:	M_{20}

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	80.00	0.395	2514.65	1.60	0.960	33.20	16.91	18.26	17.53	21.91
2	50.00	81.00	0.407	2559.05	1.62	0.960	33.70	17.16	18.54	17.79	22.24
3	50.00	78.00	0.390	2546.48	1.56	0.960	32.75	16.68	18.01	17.29	21.62

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Job No.: CTCE/BBMP/W.No.13/KRIDL/CUBE/2012-13

11.06.2013

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
Agency	: **Technical Manager (West),** KRIDL, Bangalore.
Name of the work	: Construction of Culverts in 2nd Main Road at Ravindranagara in Ward No.13 in Shettyhalli Sub Division, BBMP, Bangalore.
Reference	: BBMP/AEE/SSD/DZ/PR/27/2012-13
Sample ID	: Cement Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	14.05.2013	11.06.2013	8.267	490.6	21.80
2	14.05.2013	11.06.2013	8.152	489.7	21.76
3	14.05.2013	11.06.2013	8.394	507.4	22.55

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